Chapter 1. Introduction

One of the most important functions of the Maryland Health Care Commission[1] is to collect and analyze information on utilization, cost, and access to health care services. This report continues and broadens that effort. This chapter describes the characteristics of the information collected from private and public payers, outlines the edit processes used to prepare information for analysis, and concludes with a discussion of limitations that readers must consider when examining the results presented.

Sources of Information

The development of this report began with the creation of the Maryland Medical Care Data Base for 1998. Encounter data processed by private payers between January 1, 1998, and April 30, 1999 were obtained under the regulations stated in COMAR 10.25.06. These regulations require private insurance companies that collect more than $1 million in health insurance premiums to forward to the Commission selected information on all fee-for-service (FFS) claims and capitated specialty care encounters. Some payers also provide information on capitated primary care encounters. In addition, payers are required to submit provider information along with the encounter data that includes specialty services. In 1998, ninety-one payers were identified through annual financial records submitted to the Maryland Insurance Administration and were notified of the COMAR 10.25.06 requirements. Table 1 summarizes the final status of the payers designated to submit data in June 1999. Payers could meet the state reporting requirements by submitting data or by obtaining a waiver. Appendix A presents a table of the ninety-one payers that were required to submit information.

TABLE 1
1998 MEDICAL CARE DATA BASE
PAYER SUBMISSION STATUS

Data Base Compliance	Number of Payers	Percent of Payers	Premium Volume (as reported to MIA)	Percent of Health Care Premiums
Submitted Data Directly or Reported with Another Payer	55	60.4 %	$2,665,821,073	95.8 %
Received waiver	34	37.4	117,914,905	4.2
Not Identified	2	2.2	994,071	0.0
TOTAL	**91**	**100.0 %**	**$2,784,730,049**	**100.0 %**

Source: Internal MHCC data and analysis of Maryland Insurance Administration filings.

[1] In October 1999 and according to House Bill 995, the Maryland Health Care Commission was formed by consolidating two existing commissions, the Health Care Access and Cost Commission and the Maryland Health Resources Planning Commission. This merger establishes a streamlined health care regulatory system in Maryland so that a single state health policy can be better articulated, coordinated, and implemented.

The majority of Maryland's major private health insurance companies and HMOs complied with the state requirement by submitting data. These fifty-five payers represented about 96 percent of the private health insurance premiums paid in the state. The quality and completeness of the submitted data varied among payers.

Under Maryland law, private payers may be waived from the data submission requirements if they can demonstrate that submitting the data would impose a significant burden upon them relative to their share of the Maryland private insurance market. Of the ninety-one payers in the 1998 Medical Care Data Base, thirty-four private payers, representing 4.2 percent of the state's total premium volume, were granted such waivers.

In addition to the private insurance plans, the Medical Care Data Base also incorporates data from the major public payers to the extent practicable. The 1998 claims data for Medicare beneficiaries were obtained from (1) the Health Care Financing Administration (HCFA) Physician Supplier Beneficiary State File (Medicare non-HMO) and (2) the private payer encounters for Medicare-certified HMOs (Medicare HMO FFS). However, data on Maryland residents who were State of Maryland Medical Assistance Program (Medicaid) beneficiaries are not included in the 1998 Medical Care Data Base, primarily because most Medicaid beneficiaries were enrolled in ***HealthChoice***. Usable encounter data for Medicaid managed care enrollees were not available in time to be added to the data base. As has been the case in previous years, the Medical Care Data Base contains no information on the uninsured, nor does it include data on the Veterans Administration and CHAMPUS programs.[2]

It is important to note that private and public payers encrypt patient identifiers before releasing data to the state. Each patient ID is reassigned to a unique, encrypted, identification number within each plan so that the entire claims or encounter history of an individual in that plan can be reconstructed for the year. However, it is not possible for MHCC to identify individuals within the Medical Care Data Base.

Constructing the Medical Care Data Base

The construction of the Medical Care Data Base is a complicated effort requiring the cooperation of the payer community, an outside contractor, and MHCC. COMAR 10.25.06 specifically describes the data that payers (consisting of insurance companies and HMOs) must provide for building the Medical Care Data Base. The Commission staff developed a ***Data Submission Manual*** that fully explains the data formats, coding conventions, and error checks that payers must use. Nevertheless, individual private payers submit data with significant variations in format and data element coding. These differences are due primarily to limitations in existing information systems and the lack of standardization among payers in what information is needed to adjudicate insurance claims. Data submission standards for health care encounters when reimbursement is made through capitation vary widely among HMOs. In 1998, the Commission mounted

[2] Certain health insurance companies participating in the Federal Employees Health Benefits Plan that provide insurance to Maryland residents are not licensed to sell insurance in Maryland and are not asked to submit data to MHCC.

an effort to improve data quality. Payers and the Commission worked throughout the year to increase data consistency. Despite these efforts, many payers submitted data more than once due to uncorrectable problems. The Commission's data processing contractor devoted considerable staff to reformatting and recoding the data submitted by the various payers into a common format with consistent data characteristics. Much of this effort was completed on a payer-specific basis, as most problems were unique. Once data existed in a common format, edits were applied to eliminate institutional services and those services provided before the start of 1998. Other edits were aimed at increasing uniformity across payer submissions. A number of additional edits were used to ensure that information accurately reflected the services rendered. MHCC also used imputation methods to replace missing values for several critical data elements when the data submitter did not report that information to the Commission. A full discussion of the edit process is included in Appendix B.

Creating Analysis Files for the Practitioner Report

The analysis of Maryland residents' use of health care practitioner services is a primary goal of this report. However, analyses cannot simply reflect the summarized utilization from the Medical Care Data Base. A number of data limitations exist. For example, expenditures by self-pay patients and spending on behalf of individuals by some self-insured companies are not submitted to the Commission. HMOs are not required to submit data on capitated primary care services. In 1998, MHCC did not collect data on Medicaid services. Exclusion of these services leads to underreporting of total expenditures and services and limits the ability to generalize on overall spending.

To produce a comparable sample of services across payers, MHCC applies specific edits to eliminate services beyond the scope of this report or to specifically categorize services that are included. For example, services that were provided in 1999 are eliminated because they occurred outside the 1998 reporting period for this report. Information on services provided to individuals by a secondary payer are eliminated from this report to avoid possible double counting of utilization. Other edits of the Medical Care Data Base precisely define the respective payer populations. Throughout the report, MHCC makes comparisons between utilization provided by private non-HMOs versus that provided by private HMOs. For Medicare, MHCC compares utilization provided under the traditional program versus that provided under Medicare HMO arrangements. To make these comparisons meaningful, only services provided to beneficiaries within specified age ranges have been used in these analyses. Table 2 describes the definitions used to construct the four payer categories. Services for private-non HMO patients age 65 and older have been removed from the analyses. For the Medicare non-HMO population, services for the under 65 patients have been removed from the analyses in this report.

TABLE 2
SERVICES USED TO CONSTRUCT
PRINCIPAL PAYER COMPARISON CATEGORIES

	Non-HMO	HMO-FFS	HMO-Capitated
PRIVATE INSURANCE	All reimbursed services for enrollees ages 0 to 64 with the delivery system classified as indemnity, preferred provider organization (PPO), or preferred provider organization point-of-service (PPO-POS).	All reimbursed services provided by a primary payer for enrollees ages 0 to 64 with the delivery system classified as HMO or HMO-POS in which the payer was identified by the Maryland Insurance Administration as being licensed to sell HMO coverage in the state.	All capitated services provided by a primary payer to an enrollee ages 0 to 64 with the delivery system classified as HMO or HMO-POS in which the payer was identified by the Maryland Insurance Administration as being licensed to sell HMO coverage in the state.
MEDICARE	All reimbursed services from traditional Medicare indemnity in which enrollees were ages 65 to 110 and were not Medicare disabled.	All reimbursed services for enrollees ages 65 to 110 with the delivery system classified as HMO or HMO-POS in which the payer was identified by HCFA as being certified to sell a Medicare+Choice product in the state.	All services coded as capitated by the primary payer to enrollees ages 65 to 110 with the delivery system classified as HMO or HMO-POS in which the payer was identified by HCFA as being certified to sell a Medicare+Choice product in the state.

Many analyses in this report will contain information on service, expenditure, and resource use per health care recipient.[3] MHCC eliminates some services if a service record did not contain an encrypted patient identifier and an age at the time of service. Table 3 presents the distribution of covered lives, recipients, and services between non-HMOs and HMOs in 1998. The distributions for recipients and services reflect the actual distribution of data based on the data provided to the Commission by the plan after edits and exclusions have been completed. The analyses presented in this report are based on the experiences of 2,555,751 Maryland residents who received 40,552,734 medical services at least partially paid for by private insurance plans or Medicare. Given the large number of persons and services represented in the two files used in the analysis, there is reason to be confident that the results reported in the subsequent chapters of this report generally describe utilization of practitioner services by privately insured and Medicare populations.

[3] A health care recipient is an individual with at least one service in the Medical Care Data Base. MHCC does not collect detailed enrollment data from payers; therefore, it is not possible to construct statistics based on covered lives.

TABLE 3
DISTRIBUTION OF COVERED LIVES, RECIPIENTS AND SERVICES
BY NON-HMO Vs. HMO FFS SETTING
FOR PRIVATE PAYERS AND MEDICARE - 1998

		Non-HMO	HMO*
Private Insurance	Covered Lives	1,866,562	1,470,133
	Recipients	1,153,262	1,009,646
	Services	15,798,462	8,193,665
Medicare[4]	Covered Lives	548,541	79,404
	Recipients	435,988	92,891
	Services	15,229,400	1,331,207

***HMO includes FFS and capitated services.
Source: Covered Lives – MHCC internal analyses from the ***State Health Care Expenditures: Experience from 1998***, Recipients (those covered lives or plan members who received services in 1998) and Services -- MHCC analysis of the Medical Care Data Base.

Limitations of the Analyses

The Commission is confident that the services used in the analyses accurately portray the utilization of health care practitioner services in 1998 by the four payer categories. In considering the results on the following pages, it is important to remember the following limitations:

- The basis for the analyses is the health care utilization and expenditures of insured Maryland residents, not utilization and expenditures associated with Maryland providers. Since this report focuses on Maryland residents, the tables include information on the use of out-of-state providers by Maryland residents. However, this report does not include information on the use of Maryland providers by out-of-state residents.

- This report provides no information on the use of services by the Maryland Medical Assistance Program (Medicaid) enrollees or the uninsured residents of Maryland. Health care services provided to members of the U.S. Armed Forces, residents of other states, or some citizens of other countries are also not included. It is probable that improvements in the flow of encounter data from managed care organizations that provide health care services to the Medicaid ***HealthChoice*** population will make it possible to include both the capitated and the FFS components of the Maryland Medicaid Program in future Practitioner Reports.

[4] MHCC identified Medicare HMO enrollees based on age of recipient and a plan's participation in Medicare+Choice. The number of Medicare recipients identified in this manner exceeds the July 1998 monthly enrollment because of relatively high growth and the high turnover rate in Medicare+Choice and the limitations in the screening algorithms that may have led to the assignment of some working individuals age 65 and over to this group. Future data collections will require HMOs to specifically identify Medicare+Choice enrollees.

- Data collected from HMOs are less complete than data collected from non-HMOs since the Commission does not require HMOs to submit data on capitated primary care services. Thus, the data shown in most of the ensuing tables undercount the services and work RVUs provided to HMO enrollees—both absolutely and in comparison to the number of services and work RVUs calculated for non-HMO service recipients. Chapter 6 will provide summaries of the information provided by HMOs on capitated services.

- A substantially larger number of private payers reported physician specialty for this year's Medical Care Data Base as compared to previous years. However, information on the physician's specialty was substantially incomplete or missing altogether from the data provided by four smaller non-HMO payers. These payers are not included in the practitioner specialty analyses.[5]

- Recipient-level analyses are limited to recipients and services with valid encrypted patient IDs. MHCC applied additional table-specific and variable-specific logical data screens to the analysis file data, as needed, to avoid using services containing missing data for critical fields.

[5] Payers include Anthem Health and Life Insurance Co., Educators Mutual Life Insurance Co., PFL Life Insurance Co., and Mega Life and Health Insurance Co.